

IN THE SPECIFICATION:

(Page 5 lines 12 through 19): A sixth aspect of the present invention is, in the separator for the electric double-layer capacitor described in any of the first to fifth aspects of the invention, a separator for the electric double-layer capacitor whose “tsubo ryou” surface density, that is, mass per area of separator, is not less than 10 g/m² and not more than 30 g/m², and thickness is not less than 20 μ m and not more than 60 μ m.

~~Here, the “tsubo ryou” is also called a coating amount or a surface density, and means mass per area of the separator. Hereinafter the “tsubo ryou” is referred to as the surface density.~~

(Page 6, line 25 through Page 7, line 3): Thus the flexibility and the retractility as the separator for the electric double-layer capacitor are [[do]] not [[be]] lost, thereby the separator being able to be easily wound. In addition, the wettability for an electrolytic solution can be more heightened and a performance such as a liquid hold ratio can be improved.

(Page 11, line 18 to page 12, line 2): As shown in FIG. 1, a separator 1 for an electric double-layer capacitor (hereinafter abbreviated to the “separator”) is configured of aramid fibers 2, polyester fibers 3, and glass fibers 4 [[are]] bonded each other by binders (not shown); and furthermore, silicas 5 (an inorganic compound for forming hydrosol)

adhere to a surface of each fiber in a dispersion state by the binders. Then the silicas 5 are formed with comprising minute particles of particulate silicas 6 (inorganic compound) and are a generic name of a silica that consists of single particulate silica 6 and adheres to the surface of each fiber; and another silica where the particulate silicas 6 are congregated and adhere to each fiber. Meanwhile, the silicas 5 may not be comprised in some case.

(a) Aramid Fiber

(Page 12, line 10 through 18): In addition, the aramid fibers 2 [[is]] are preferably contained in the separator 1 by not less than 40 mass percent and not more than 60 mass percent. If a containment amount of the aramid fibers 2 is less than 40 mass percent, a maximum pore size formed in the separator 1 tends to become larger, thereby the insulation property resulting in lowering. On the other hand, if the containment amount of the aramid fibers 2 is more than 60 mass percent, a void content of the separator 1 decreases, thereby an ion permeation amount in an electrolytic solution also decreasing and an internal resistance of the separator 1 becoming high.

(Page 13, line 20 through page 14, line 2): Furthermore, the polyester fibers 3 [[is]] are preferable to be contained in the separator 1 by not less than 10 mass percent and not more than 30 mass percent. If a containment amount of the polyester fibers 3 is less than 10 mass percent, even the glass fibers 4 contained in the separator 1 together with the polyester fibers 3 are decreased, the separator 1 tends to become difficult to elongate. On

Serial Number: 10/849,505
OA dated December 13, 2004
Amdt. dated March 14, 2005

the other hand, if the containment amount of the polyester fibers 3 is more than 30 mass percent, the pore diameter formed in the separator 1 becomes large, thereby the insulation property tending to deteriorate.

(Page 26, lines 14 through 16): From Table 1 and FIG. 6, as the glass fiber compounding ratio having hydrophily increases, the water supply height becomes high, so it turns out that the wettability of the separators [[are]] is improved.

(Page 42, lines 10 through 17): In addition, referring to FIG. 20 with recognizing the importance of the liquid hold ratio and tensile elongation of Table 5, although in a method for increasing the glass fiber as in the comparison example 6 to the example 15 the tensile strength is remarkably lowered as the glass fiber compounding ratio increases, it is inferred that there is a limitation value (about 640 %) in an increase of the liquid hold ratio; whereas in the [[examples13]] examples 13 and 14, the liquid hold ratio increases while suppressing a lowering of the tensile strength as little as possible, and there is no limitation value, too.